

Application No.: 10/598,544
Amendment dated: April 8, 2009
Reply to Office Action of: **October 28, 2008**
Atty. Ref.: 010200-122

Amendments to the Drawings

The attached sheet of drawings includes changes to all the FIGS. These sheets, which include FIGS. 1a-15b, replace the original sheets including those same FIGS.

The revisions to the drawings are more consistent and well-defined lines.

Attachment: Replacement Sheets

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REMARKS

This responds to the **October 28, 2008** Office Action.

In the Office Action, claims 1-21 are noted as pending in the application, claims 1-21 stand rejected, no claims are objected to and no claims are allowed. No claims have been withdrawn from consideration. Claim 22 is previously canceled.

Drawings

The drawings have been objected to. Replacement drawings are submitted here with.

Applicant notes that FIG. 3a is used in the published application, while the published PCT application uses FIG. 2d. Applicant respectfully requests that FIG. 2d be used in any republication of the application or publication of any issued patent.

Priority Documents

Applicant appreciates the indication that all required priority documents have been received.

Objections

TITLE

According to the Office Action, the title of the invention is not descriptive, and a new title is required that it is "clearly indicative of the invention to which the claims are directed." The Office Action then suggests a title. The suggested title has been adopted by a proposed amendment to the publication information through Private PAIR. However, it is noted that Applicant adopts the suggested title as representing at least one aspect of the disclosure, and no representation is made and Applicant does not concede that the new title is indicative of the invention to which the claims are directed. For example, the original application as filed included claims not expressly reciting "expandable", and the presently pending claims include a method claim.

ABSTRACT

The Office Action requires a new abstract. Even though the original abstract was filed as part of a PCT application and Applicant did not control the arrangement thereof, a new Abstract is included here with and is set forth on a separate page.

Rejections

INDEFINITENESS

The claims are rejected under 35 USC 112, second paragraph, as being allegedly indefinite. These rejections are respectfully traversed for the reasons set forth below.

The Office Action rejects claim 1 for the use of the disjunction "OR". Applicant appreciates the explanation as to the rationale for the present rejection. It is respectfully submitted that Applicant is not claiming a range within a range, but instead is reciting a seal having various characteristics. Additionally, claim indefiniteness is evaluated in the context of one having ordinary skill in the art, and it is respectfully submitted that one having ordinary skill in the art relating to the types of containers disclosed in Applicant's specification would understand the context in which the seal could be used.

As noted in the MPEP:

"The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. . . . Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement."

"The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- "(A) The content of the particular application disclosure;
- "(B) The teachings of the prior art; and
- "(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

"In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000)."

MPEP Section 2173.02.

It is also well-accepted that alternative terms, for example using "OR", are not per se objectionable.

Alternative expressions using "or" are acceptable, such as "wherein R is A, B, C, or D." The following phrases were each held to be acceptable and not in violation of 35 U.S.C. 112, second paragraph in *In re Gaubert*, 524 F.2d 1222, 187 USPQ 664 (CCPA 1975): "made entirely or in part of"; "at least one piece"; and "iron, steel or any other magnetic material."

MPEP Section 2173.05(h)(II). Therefore, the present claims using the disjunctive "OR" are not indefinite.

ARTICLES "THE" VERSUS "SAID"

Claims 1, 9, 12 and 18 are rejected for the use of "said seal". No rule exists prohibiting the use in a patent claim of "said" in place of "the" as an article. In fact, the MPEP quotes with approval claim language using "said" with the conclusion that

the claim is not indefinite. Therefore, Applicant respectfully declines the invitation to amend the claims to replace "said". Any lingering doubt regarding this issue can be eliminated by reviewing the vast number of patents issued having claims using "said". See also, MPEP Section 2173.05(e).

LACK OF ANTECEDENT BASIS

A number of claims are rejected for lacking antecedent basis, for example claims 1, 4, 6, 8, and 11. Some amendments have been made to overcome these rejections, but to the extent that a claim recitation refers to an inherent structural feature or method, a lack of a *per se* or literal antecedent is not objectionable. See, MPEP 2173.05(e). Specifically:

"Inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation "the outer surface of said sphere" would not require an antecedent recitation that the sphere has an outer surface. See *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359, 61 USPQ2d 1216, 1218-19 (Fed. Cir 2001) (holding that recitation of "an ellipse" provided antecedent basis for "an ellipse having a major diameter" because "[t]here can be no dispute that mathematically an inherent characteristic of an ellipse is a major diameter")."

Therefore, for example, claim 4, line 2, does not require a *per se* definition of "expansion", for example where "said side wall" has been previously defined as "an expandable side wall."

APPLIED ART

Claims 1-10 and 12-21 are rejected under 35 U.S.C. 102(b) as being allegedly anticipated by *Boyd* (6,688,081). Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by *Gallagher* (2,551,937) and, presumably also by *Krishnakumar et al.* (5,908,128).

These rejections are respectfully traversed.

Applicant's Disclosure

Consider first Applicant's disclosure. Applicant discloses apparatus and methods for removal of vacuum pressure in a container, for example a container that contains a hot liquid. In one example, the container 1 includes a neck finish 2 with an opening closed off by a primary seal 4. (See, FIG. 2d.) In one example, the primary seal has an expandable side wall 4a. As the liquid 21 cools, the side wall 4a is drawn into the container 1 to remove vacuum pressure created within the container 1. A cap 25 can provide a secondary seal for the container and define a secondary headspace 24b between the primary and secondary seals 4/25. In other examples, the seal 4 can be replaced by a mechanically movable seal, which may, for example, be locked in a downward position. In another example, the secondary seal can be provided with a port or aperture, for example at 26, to provide access into the secondary headspace for a commodity (FIG. 8). In another example, a commodity such as a tablet or pill may be provided within a secondary headspace.

Cited Prior Art

In *Boyd*, a closure (specifically identified as a head-space displacing member 44, a scavenger closure head-space-displacing member 56, or a hollow headspace-commodity-shift member 62) is able to move into the filled container when the closure is threaded onto the container. Those skilled in the art would not treat the *Boyd* closure as a seal *per se* until the closure is in place and forming an effective seal. Therefore, even though *Boyd* loosely refers to the closures as seals, they are not literally a seal until they have effected a seal with the container.

In *Boyd*, the "seal" is a seal *per se* only when it actually creates a seal with the container, after which it is no longer movable as a seal. There is no movement of any of the alternative seals of *Boyd* following sealing of the container. This is clear, for example, at paragraph 7, lines 38 to 45, where it is stated that the method "...advances the scavenger closure headspace-displacing member 56 into the filled container 26 to cause gases in the headspace 30 (fig. 2) to vent through the clearance 50 and escape over the thread 14 before the scavenger closure 52 completely seals against the sealing surface 13" Therefore, no seal is created in *Boyd* until the seal/closure is fully threaded onto the container and the seal is formed

between the seal/closure and the sealing surface of the filled container 26. Movement of the seal/closure occurs only before sealing, and up until that time, headspace gas escapes as the closure is threaded onto the container. It is also noted that *Boyd* specifically states that the seal 56 is relatively stiff (column 7, lines 23-26), and the materials of each of the closures include metal or polymer. Clearly, *Boyd* provides no teaching or suggestion for an expandable or movable seal, a seal where a wall includes an expandable side wall, a concertina wall, or other features described by Applicant.

There is, therefore, no disclosure or suggestion in *Boyd* that any of its "seals" 44, 56, 62, has the ability or intention to move when the closure is sealed on the container, for example when a heated fluid is inside the container.

Gallagher and *Krishnakumar* both teach the use of a seal (5), (311 or 405), which is of rubber or a resilient material which would have the ability to deform in order to ensure a tight seal. However, there is no disclosure or suggestion in *Krishnakumar* or in *Gallagher* of a seal which is both "expandable and moveable" and moveable, moreover, downwardly towards the base and within the neck finish to compensate for vacuum forces during cooling of the liquid following sealing of the container. It is submitted, therefore, that claim 1 is not anticipated by the disclosure in either *Gallagher* or *Krishnakumar*.

Claims

Consider now the claims in the application.

Claim 1 is an independent apparatus claim and recites in part:

"a neck finish which includes an expandable and moveable seal, wherein the seal is configured to be expandable and moveable relative to the container when sealed thereto and when a heated liquid is in the container, said seal moving downwardly towards the base and within the neck finish to compensate for vacuum forces during cooling of the liquid following sealing of the container, said seal being one of a flexible material housing an expandable side wall, a flexible material housing an expandable side wall which has a concertina construction

providing for the expansion and a flexible balloon structure which is able to expand within the neck finish in compensating for vacuum pressure as the liquid cools."

None of the applied references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or wherein the seal is configured to be expandable and moveable relative to the container when sealed thereto, or wherein said seal is one of a flexible material housing an expandable side wall, a flexible material housing an expandable side wall which has a concertina construction providing for the expansion and a flexible balloon structure which is able to expand within the neck finish in compensating for vacuum pressure as the liquid cools. *Boyd* is neither flexible or moves when the closure is sealed. There is no disclosure or suggestion in *Boyd* that any of its closures 44, 56, 62, has the ability or intention to move following sealing of the container. Additionally, neither *Krishnakumar* or *Gallagher* teach or suggest a seal which is both expandable and moveable, or which is moveable downwardly towards the base and within the neck finish to compensate for vacuum forces during cooling of the liquid following sealing of the container. Clearly claim 1 is patentable over the applied references.

Claims 2-20 are dependent directly or indirectly from independent claim 1 and are asserted as being patentable for the same reasons as discussed with respect to claim 1, for the combinations in the dependent claims as well as for the additional limitations recited in the dependent claims. Note for example claim 3 reciting in part "wherein said seal is of said flexible material having an expandable side wall". Note also claim 4 reciting in part "said side wall has said concertina construction providing for its expansion". Claim 6 recites in part "said seal includes said side wall which can be physically moved relative to the neck finish and towards the liquid in the container". Claim 7 recites "the side wall includes a screw thread engageable with another screw thread provided for said neck finish or a cap thereof". Note also claim 10 reciting in part "a commodity is positioned within said secondary headspace". Claim 11 recites in part "said commodity is one of a tablet and a pill intended for mixing with the liquid before use". Note also claim 16 reciting in part "the seal is of said flexible balloon structure which is expands within the neck finish in

compensating for vacuum pressure as the liquid cools". Claim 17 recites in part "wherein said base inverts to provide a compression of the seal to move it within the neck finish towards the said opening and to pressurize a secondary headspace above said seal". Clearly these dependent claims are patentable over the applied art.

Claim 21 is an independent method claim and recites in part:

"heating the fluid at least one of before and after its introduction into the container, providing an expandable and moveable seal for the open end to cover and contain the fluid, said seal responding to one of the expansion and contraction of the fluid so as to compensate for pressure in a headspace of the container under the seal following sealing of the container, by moving downwardly towards the base and within the neck finish, the said seal being one of a flexible material housing an expandable side wall, a flexible material housing an expandable side wall which has a concertina construction providing for the expansion, and a flexible balloon structure which is able to expand within the neck finish in compensating for vacuum pressure as the liquid cools."

None of the applied references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or providing an expandable and moveable seal for the open end to cover and contain the fluid, or a seal being one of a flexible material housing an expandable side wall, a flexible material housing an expandable side wall which has a concertina construction providing for the expansion, and a flexible balloon structure which is able to expand within the neck finish in compensating for vacuum pressure as the liquid cools. *Boyd* is neither flexible or moves when the closure is sealed, and neither *Krishnakumar* or *Gallagher* teach or suggest a seal which is both expandable and moveable, or which is moveable downwardly towards the base and within the neck finish to compensate for vacuum forces during cooling of the liquid following sealing of the container. Clearly claim 21 is patentable over the applied references.

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Reconsideration of the application and claims in view of the foregoing amendments and remarks is respectfully requested. Early notice of allowance thereof is earnestly solicited.

If the Examiner does not believe the foregoing amendments place the application in a condition for allowance, Applicants respectfully request the courtesy of a telephone interview to discuss the claims.

This response is being filed with a Payment for a Three-Month Extension of Time.

Please charge any additional fees that may be due or credit any overpayments to our deposit Account No. 50-0655. If a petition is required in conjunction with this paper, please consider this a request for such a petition.

Respectfully submitted,

Dated: April 8, 2009

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